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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/463,565	04/21/2001	Tatsuya Hashimoto	MAT-7886US	6486

7590 10/31/2003  
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EXAMINER
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WINTER, GENTLE E

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 10/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/463,565

Applicant(s)

HASHIMOTO ET AL.

Examiner

Gentle E. Winter

Art Unit

1746

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 15 October 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☐ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: \_\_\_\_\_.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

8. ☐ The proposed drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_

Continuation of 2. NOTE: Changing dependencies necessitates a new search, and adding new claims would necessitate new grounds of rejection.

Continuation of 5. does NOT place the application in condition for allowance because: Applicant argued: Carlson does not explicitly state on which side of the cathode the layer was coated.

However, for the layer to function as a separator, its intended purpose (column 3, lines 34-40), it must be coated onto the layer of cathode material, not onto aluminum surface of the opposite side of the aluminum foil substrate. Thus, "cathode coating layer" refers to the layer of cathode active material on the aluminum substrate. This conclusion is further supported by claim 62 in which the substrate and the cathode coating layer are separate elements of the claim. The boehmite sol is coated onto the cathode coating layer, not onto the substrate. See also, Carlson, column 9, lines 31-32 ("the separator is coated directly onto the cathode layer").

Applicants' claims recite a layer on a surface on the electrode plate having thereon an oxide layer formed by boehmite treatment. In Carlson, the boehmite layer is on the cathode active material, not onto the aluminum substrate (electrode plate). Thus, this limitation of applicants' claims is not met. For this reason, the rejection of claim 1 as anticipated by Carlson should be withdrawn.

It is noted that claim 1 is directed to an apparatus. Structural limitations are where patentability resides in apparatus claims. That a particular substrate is to be used as a cathode, or which side of the cathode is coated is relevant only to the extent that the same imparts structure. Applicant has provided a definition of "electrode active material" but has not placed the definition in the claim. What is the "chemically reactive material in either of the electrodes that participates in the charge and discharge reactions." Or would Applicant prefer "An energy-storing material, such as lead oxide, used in plates of a storage battery." Why is Applicants' definition of "electrode active layer" superior to the definition provided by the Office, and taken from the Nikaido patent?

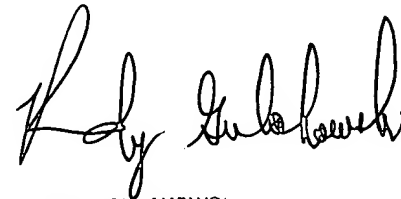
In support of this rejection, the Office also asserts, without support, that "aluminum inherently forms an oxide layer." Paper 13, page 4, lines 1-2. While the surface of aluminum metal may form a thin film of aluminum oxide under ambient conditions, Applicants' claim 1 does not recite an oxide layer. Applicants' claim 1 recites an "oxide layer being formed by applying a boehmite treatment to the electrode plate surface," i.e., a layer of boehmite (hydrated aluminum oxide),

The Office has neither asserted nor provided any evidence that a layer of hydrated aluminum oxide forms on an aluminum surface under ambient conditions. Further, claims 3 and 4 each recite a thickness range for the boehmite layer. The Office has neither asserted nor provided any evidence that the thickness any layer of aluminum oxide that may form on an aluminum surface under ambient conditions falls within the thickness range recited by these claims. The Office is respectfully requested to provide such evidence or it will be concluded that none exists.

Notwithstanding the above arguments, hydrated aluminum oxide is not what is claimed. Rather "oxide" is what is claimed. Applicants' arguments are drawn to limitations not in the claims.

With respect to statements to the effect of "[T]he Office is respectfully requested to provide such evidence or it will be concluded that none exists." Applicants' are always free to draw conclusions. Facts are not diminished or enhanced by drawing conclusions. This Examiner relies on the prosecution history, including all the references, and the facts which are therein. It is noted that Applicants' have not taken the position that oxide does not form on aluminum when the same is exposed to air. More specifically, as to claim 3, disclosing that the oxide layer has a thickness of 0.5 microns-5 microns. The boehmite layer is disclosed to have a range of 1-25 and 5-15 microns, thus covering most of the claimed range. See e.g. column 4, lines 3-9.

The balance of the arguments are fully addressed in the prior Official actions.



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